mal sac, owing to some obstruction in the nasal duct, the lower canaliculus was slit up and a probe passed into the sac, which, however, was found empty, and the probe, a No. 8 Bowman, passed without any difficulty to the bottom of the duct. It was then seen that a cyst of some sort was present, lying in front of the lachrymal sac, and having no connection with it, and an attempt was made to remove it. A long vertical incision was made through the skin over the tumour, and as the wound gaped the cyst almost immediately presented itself. The skin overlying the cyst was then slowly and carefully dissected away on all sides with some little difficulty, but on the side of the nose the adhesions were found to be very firm, and an unfortunate slip of the knife handle caused a rupture of the cyst wall, and an evacuation of an amber-yellow, oily fluid, which towards the last became somewhat greenish in colour. The cyst immediately collapsed, and the dissection of the wall, from its deep attachments, had to be done piecemeal. The wall of the cyst came away in shreds, and the adhesions to the periosteum and canthal ligament were so dense and firm that the edge of the knife had to be resorted to. After the entire cyst had been removed, and the cavity syringed out, the bone was found so denuded that it was feared the periosteum had been removed in the operation. One suture was introduced at the top of the wound and the rest left open under carbolized lint. Quite free suppuration ensued with considerable swelling and inflammation of the skin and neighbouring parts, but these symptoms gradually subsided, the cavity began to granulate from the bottom, and at the end of the third week was entirely closed.

The cyst wall, on being examined, was found to consist of several layers of connective tissue pressed together so as to make a very dense structure though comparatively thin. The inner surface was very smooth and shining as if covered by a membrane, but neither sections nor surface preparations showed any epithelial formation.

These prelachrymal cysts are rare. Verneuil reported three cases to the Société de Chirurgie de Paris, in 1876, and an abstract is given of them in a paper by the writer, published in the *American Journal of the Medical Sciences* for January, 1878, and already referred to. They have no communication with the lachrymal sac, and Verneuil considers them in most cases congenital, and states that their contents resemble olive oil. The origin of the oily contents is however unknown.

47 EAST TWENTY-THIRD ST.

ARTICLE VII.

ULCERATIVE PHTHISICAL LARYNGITIS; ITS NATURE, AND THE VALUE OF TRACHEOTOMY IN ITS TREATMENT.

By BEVERLEY ROBINSON, M.D., Lecturer upon Clinical Medicine at the Bellevue Hospital Medical College,[1] New York.

UPON two occasions[2] last year I had the honour of presenting at the New York Pathological Society, specimens of ulcerative disease of the

[1] Read before the Medical Society of the State of New York, Feb. 6, 1879.

[2] April 25, and Nov. 14, 1877.

larynx, taken from patients who died in my service at Charity Hospital. These patients were both affected with catarrhal phthisis. In the first case there was found at the autopsy secondary tuberculariza tion of the lungs, pleura, kidneys, peritoneum, and the small intestine showed scattered phthisical ulcerations. The condition of the larynx was as follows, according to the post-mortem record made twenty-one and a half hours after death, by Dr. E. A. Maxwell, one of the curators to Charity Hospital: "Both vocal cords show about their middle portion, at upper and rim borders, longitudinal ulcerations, while the rim of vocal cord is thickened. At posterior commissure of each is an irregular spot, where mucous membrane is eroded; interior mucous membrane is congested." This larynx was afterwards examined microscopically at my request by Dr. Thomas E. Satterthwaite, curator to St. Luke's and Presbyterian Hospitals, and no evidence of tubercular deposit was found. The ulcerations of the larynx were therefore considered to be catarrhal in nature. In my second case there were no miliary tubercles in any of the viscera, but the patient presented a large gangrenous cavity of the right lung. His death was probably occasioned by œdema of the aryepiglottic folds. The larynx offered the following appearances: "The tissues of the epiglottis very lax, and curving inward; its mucous membrane, just above the ventricular bands, show numerous small superficial ulcerations. The vocal cords of both sides (?) show œdema, but that of left side more marked, and so much as to almost obliterate sacculus of this side." (Spencer, Curator to Charity Hospital.)

In relation to this case I made the following remarks: "The ulcerations of the larynx are evidently catarrhal in nature, and there is, at least to ocular examination, no tubercular deposit." This opinion was fully corroborated at a later meeting of the Society[1] by the report of the microscopical committee to whom the larynx was referred, which report read as follows:—

"To external appearance there was no decided lesion of the larynx, more than that the surface of the mucous membrane was rough, especially at the base of the epiglottis, and from this point down to and over the lower vocal cords.[2] There was no decided elevation of the mucous membrane, indicative of *miliary tubercular granulations*. On section of the tissue between the epiglottis and upper margin of the upper vocal cord a number of yellow, circular spots were noticed in the submucous tissue. They looked to the eye like cheesy nodules, and varied in size from a pin's-head to a No. 2 shot. No miliary granulations were seen anywhere. Examined microscopically, it was seen that these spots had undergone granular and fatty change, as is seen in the so-called "yellow granulations." The submucous tissue was in places densely infiltrated with lymphoid corpuscles, chiefly about the mucous glands, but neither *adenoid tissue* nor *giant cells* were seen. The epithelium of the surface showed the characteristic cylindrical form that occurs throughout almost the whole of the larynx, and was intact except in

[1] December 12, 1877.

[2] Ocular appearances had changed within a few days after the post-mortem, owing to the action of dilute alcohol, in which the specimen had unfortunately been immersed at first.

a few places, but never wholly gone. In these places the epithelium was low, deformed, and did not take the colouring matter. The elongated papillæ seen on the true vocal cords and in the posterior foldings of the mucous membrane, near the arytenoid cartilages, were normal."

The interest of the two cases, an abstract of which I have just read, relates in great measure to two important questions: 1st question: What is laryngeal phthisis? Is it simply the irritation and ulceration of the glands of the larynx resulting from the passage of pulmonary sputa over the surface? Are tubercles at times developed in its tissues?

2d question: If the former belief be the correct one, or generally and nearly so, how far is it justifiable to perform tracheotomy in the earlier stages of ulcerative laryngitis of this nature as a *means of cure?*

In reply to the first question, What is laryngeal phthisis? I shall be brief, but not too much so, I trust, to make my readers share my personal convictions. The opinions of eminent microscopists are about equally divided to-day between those who admit the presence of tubercle as *frequent* in the mucous membrane of the larynx (Virchow) and those who believe that it is there seldom met with (Rindfleisch). A few observers boldly affirm that tubercle *never* exists in the larynx (Rühle). With frequent opportunities of observation during several years past, I hold the position of not being able to discover the tubercular granulum in the larynx either before or after death, and whilst I do not positively deny its existence, I am of opinion that it must be extremely rare in this situation. The elevations which have been described in the larynx under the name of miliary tubercle, are none other, as a rule, than small spherical swellings, which are occasioned by the filling up with transparent fluid of the closed follicles of the submucous reticulum, which have been described in the normal larynx by Heitler[1] and Coyne.[2]

The liquid contained in the follicles is not long in becoming opaque, its limiting wall loses its epithelial covering, then expands, and finally breaks, leaving behind a small circular, rather superficial ulceration. These follicles are found in pathological as in healthy conditions, more frequently over the false cords, and in front of the arytenoid cartilages than elsewhere. I have not been fortunate in recognizing them often, and, on this account, am disposed to believe that they become eroded, and lose their contents very rapidly after once being formed. They have been seen infrequently on the free margin of the epiglottis, and, when there present, the prognosis, according to one accurate observer,[3] Dr. Wm. F. Duncan, of New York, has always been considered unfavourable. In this connection, and inasmuch as I myself do not remember to have seen these elevations on the free margin of the epiglottis, I would remark that the latest and most careful histological researches do not sustain Dr. D.'s view, since

[1] Stricker's Med. Jahrb., vol. iii., iv., 1874.

[2] Recherches sur l'Anatomie Normal de la Muqueuse du Larynx, Paris, 1874.

[3] Oral communication.

they make no mention of closed normal follicles at this place. The closed follicles of the larynx become enlarged, doubtless, under similar conditions with those which cause the closed follicles of the pharynx or of the intestine to become prominent. These conditions are, on the one hand, the dyscrasic constitution of the patient, viz., catarrhal, phthisical, and scrofulous; and, on the other, the passage of secretions, occasioned by an inflammatory processus, over the region of their anatomical site. But does ulceration, even of catarrhal type, always affect the closed follicles within the larynx? Unquestionably not. The racemose, multilocular glands are also frequently the seat of ulcerative processes, especially about the orifices of their ducts. These ulcerations coalesce afterwards, and are oftentimes of extensive area and irregular contour. It may be, also, that they at times become directly inoculated by the passage of sputa containing real tubercular débris. It is not correct, however, at the actual date of our information, to attach primary importance to infiltration of lymphoid corpuscles around glands, for these latter are already present in a state of health; and though more numerous in the phthisical ulcerations than they are normally, the action of catarrhal inflammation is sufficient to account for this fact, without an attempt being made to establish the tubercular nature of the affection. What lends additional weight to this view of the non-tubercular nature of laryngeal phthisical ulcerations, in the great majority of cases, are the occasional evidences of cure observed by well-known laryngoscopists. Cohen and Isambert, notably, have seen these ulcerations heal and perfectly cicatrize; and this was true, in a few instances, even though the lungs were already affected with phthisis. And in my own city of New York, Drs. Frank Bosworth and Wm. F. Duncan have had latterly some remarkable results which are attributed by them to their method of treatment. This mainly consists in repeated and very thorough cleansing of the laryngeal surfaces by means of a carbolic and alkaline spray (Dobell's), followed by topical applications, with mild astringents and iodoform, combined with morphia. I regret to add, personally, I have never been able to obtain such encouraging curative effects, but doubtless this is properly accounted for by less methodical and rational measures.

Before leaving my first question, I cannot forbear to cite from the second edition of Rindfleisch's *Pathological Histology*, to show that this learned microscopist, whilst admitting the *possible* presence of miliary tubercles in laryngeal phthisis, nevertheless attributes to them a very subordinate rôle in the evolution of this disease.

"When we see," says Rindfleisch (p. 371), "that the most important and the severest destructions of the *larynx* and trachea are produced *alone* by *catarrhal* inflammation and ulceration, we reasonably ask ourselves what, then, remains *there* for tuberculosis to do?" To this he replies, some lines further on: 'These tubercles certainly lie so individualized and beside the inflammatory infiltration of the real surface of ulceration, are such insignificant new formation, that I would only regard them as a pledge of the connection of this process with consti-

tutional tuberculosis. At the most, we might ascribe to them the valuation of a permanent inflammatory irritation, and to trace back to this the obstinacy and the tendency to relapse, which is peculiar to these catarrhal inflammatory conditions."

Between this view, reported verbatim, and the one I hold, there is, as will be remarked, a very slight divergence. Having admitted the usual nature of phthisical ulcerations of the larynx, what may be the value of tracheotomy in this disease?

Manifestly, in order that the best attainable results may be secured by tracheotomy, the ulcerative disease of the larynx should not be permitted to make too great progress. In order to have legitimate hopes of benefit to the patient from this operation, the ulcerations must yet be limited in their action to the mucous membrane, or the soft tissues beneath. When the cartilages are attacked by caries, or necrosis, and concomitant ankylosis of the articulations is present, it would be almost irrational to expect any very decided improvement from tracheotomy, much less an absolute cure. Tracheotomy, if indicated at all, therefore, as a curative procedure, must be performed in the earlier stages of ulcerative disease, or more definitely, perhaps, at that period when the nature of the ulcerations is obvious, and local treatment appears of little avail. And even conceding that the favourable results obtained by Drs. Bosworth and Duncan[1] should be accomplished by other laryngoscopists, I would only find stronger reasons for urging the importance of tracheotomy as a means of cure. For what do we hope to gain by tracheotomy? 1. Rest of the larynx during respiration. 2. Prevention of frequent contact of atmospheric air in motion, and of purulent fluids, with a surface upon which they have occasioned disease, and are still maintaining it. Now, I can but believe that if ulcerative phthisical disease of the larynx can occasionally be cured by mere topical applications, without the above imperative conditions, embodying the very first principles of surgery, much more readily and frequently must similar results follow when these essential indications are attended to as well as is possible. We all know that we never make a single inspiratory effort unless the vocal cords, and therefore the intrinsic muscles of the larynx themselves, are put in active motion. Suppose, then, that an ulceration be seated on one of these cords, or upon the arytenoid cartilages, with their continual slight rotatory movements, and what should we expect but constant irritation of an already inflamed tissue? Moreover, do not the very latest investigations prove conclusively that even though there be no ulcerations, there is in pulmonary phthisis

[1] Unpublished Minutes of the New York Laryngological Society, June 13, 1878. Their statistics read as follows: 20 cases of laryngeal phthisis, treated at the Bellevue Clinic during the year ending June, 1878; 1 died from catarrhal pneumonia after tracheotomy; 5 disappeared improved; 1 disappeared, and probably died; 5 are left with a simple catarrhal laryngitis; 1 cured; 6 under treatment, and improving; 1 under treatment, and not improving.

frequent atrophy of the intra-laryngeal muscles by reason of compression of the primitive muscular fascicles, consecutive to abundant proliferation of cellular elements of the connective tissue in the interior of the muscle.[1] This fact, therefore, furnishes additional reason for giving the larynx rest from *involuntary* movements. In regard to voluntary movements, the operation must be serviceable, because the patient is less prone to use his voice when compelled to stop up the external orifice of his tube in order to articulate, than he is when no such necessity exists.

In regard to the injurious action of air and the passage of purulent fluids upon an exposed, raw surface, need I insist? How do we treat ulcers elsewhere situated? Is it not in accordance with the simplest axioms of surgical knowledge to keep them as clean as possible in so far as morbid fluids are concerned, and also to protect them from the irritative effects of air by simple or other dressings? Now let us judge the question of intra-laryngeal ulcerations by the effects of treatment. I, for one, affirm emphatically that all caustic substances are radically wrong when applied to the ulcerated laryngeal surfaces of phthisis. They only inflame them still more, thereby increasing the discomfort and pain of the patient in swallowing and breathing. Never have I known them to exercise any decided curative effects. In my own practice, in fact, I rarely, or never nowadays, employ even mild astringents in the treatment of ulcerative laryngitis of phthisis, and in this I differ with Drs. Bosworth and Duncan, but I rely exclusively for the relief of pain and irritation upon the use of anodynes such as morphia and laudanum alone, or combined with powdered gum or iodoform.[2] Now do not these remarks go to show still further the importance of removal of causes of irritation by isolation (in a certain sense)? It may be mooted whether attention to all these indications can be of much utility in ulcerative disease which is of tuberculous nature. When carried out practically they may be curative in catarrhal ulcerations. But we doubt such results, say some, in genuine tubercular ulcerations. That these latter are very infrequent, I have already stated, but when present that they will be very favourably influenced, if not entirely cured, by tracheotomy, I have good reason to believe when I consider the remarkable change in local appearances obtained in a case of epithelioma laryngis (a more unfavourable affection if possible, than tubercular laryngitis), presented within a few months by me to the New York Pathological Society.[3] Moreover, we should consider in *all* cases of ulcerative phthisical laryngitis, that tracheotomy is not merely *a* means but the *sole* means at our command of putting the larynx at rest and shielding it from pernicious contacts. Now it has been affirmed that in many of these cases

[1] Fränkel, quoted in Revue des Sciences Med., 15 Octobre, 1878, p. 667, from Archiv. für Patholog. Anat. und Phys., t. lxxi. p. 261.

[2] The powder of iodoform has very marked anæsthetic effects upon all laryngeal ulcerations.

[3] October 8, 1878.

of ulcerative phthisical laryngitis, death does not occur on account of this condition but rather from the presence of advanced phthisical disease in the lungs themselves. Besides, it is added, the intra-laryngeal affection is wholly dependent upon the lung trouble, and if the latter were cured, the larynx would also become rapidly healthy. Special attention, therefore, as regards curative measures should alone be paid to the care of the lungs, and the larynx need not be considered as of great importance. In answer to this I would say that whilst many cases undoubtedly die directly from the phthisical affection of the lungs rather than from the laryngeal ulcerations, still when this affection is present it always aggravates the sufferings of the patient and increases the probabilities of a fatal termination. Sometimes it causes local pain and augments the severity and frequency of cough, sometimes it increases the already existing obstruction of respiration, and renders deglutition extremely difficult. Occasionally all the preceding symptoms will appear in the same individual, and thus render his or her condition especially distressing.

In view of these facts, I therefore maintain that when ulcerative laryngeal disease manifests itself in cases of pulmonary phthisis, it always aggravates the primary disease and makes its march towards a fatal termination more rapid and deplorable. To those instances in which the intra-laryngeal ulcerations are only a somewhat tardy complication of pulmonary phthisis, we are of necessity forced to give a place to varieties in which the ulcerations of the larynx show themselves at a very early stage of impaired health. Frequently these forms are also associated with evident signs of intra-pulmonary lesions. But this is by no means a universal rule, and I have seen phthisical ulcerations of the larynx when the existence of physical signs of lung disease was extremely doubtful, not to say, entirely absent. Under these circumstances, I now feel almost convinced, if tracheotomy had been performed at an early date, the patient might have been entirely cured, both of the pulmonary and the laryngeal disease. In other instances the submucous infiltration increases rapidly, whilst the ulcerative disease is extending itself, and finally the thickened epiglottis and pyramidal masses formed by the arytenoid cartilages and ary-epiglottic folds are of such dimensions, that when acute inflammation (through exposure or fatigue) becomes grafted upon the chronic disease, our only alternative is to perform tracheotomy, so as to relieve dangerous dyspnœa. In almost every case of this description it can be shown, I believe, that the operation is not risky, if carefully performed, and is of great benefit in speedily alleviating most of the harassing symptoms of which I have spoken above, and perhaps in adding to the chances of the ultimate cure of the patient.

Are there any cases which go to prove this statement and further to indicate the probable value of tracheotomy as a curative procedure in ulcerative phthisical disease of the larynx? There are without doubt, a few

recorded, and there are quite a number of which I have had oral information from members of our profession.

One of the most instructive of which I have knowledge is that of a patient presented to the members of the New York Pathological Society, at a meeting held January 9, 1878, by Dr. J. H. Ripley, surgeon to Charity Hospital.

The patient of Dr. Ripley had evident pulmonary phthisis at an advanced stage, viz., a large cavity in the left lung, with consolidation of right apex. Two months previous to being seen by Dr. R. he had become aphonic, and to loss of voice difficult respiration was soon added, and had been getting so much worse within a few weeks as to frequently awaken him at night with a sense of impending suffocation. On December 23, 1877, he was brought to St. Francis's Hospital, suffering from laboured and stridulous breathing. The face was dusky, and the pulse frequent and feeble. Tracheotomy was performed, and the relief following the operation was very great. Sixteen days later the patient's breathing was free, his appetite much improved, and his cough greatly moderated. When the tube was removed and the external wound closed, he could speak with almost natural clearness, and there was less dysphagia. Dr. Elsberg examined the larynx six hours after the operation and dictated the following: "I find the soft parts at the entrance of the larynx much hypertrophied, and the whole interior filled with swollen, infiltrated tissue; the aryteno-epiglottidean folds form great cushions, which meet in the median line. In my opinion, this condition would have proved rapidly fatal without tracheotomy." Dr. Elsberg re-examined the larynx on January 8, 1878, fifteen days after the operation. He then said, "The swelling and infiltration of the parts have mostly disappeared; the mucous membrane is pale, and the superficial vessels enlarged."

"It would seem from the foregoing facts," says Dr. Ripley (*Med. Record*, Feb. 23, 1878), "that tracheotomy has in this case accomplished these results: 1. It has relieved symptoms. 2. It has prolonged life. 3. So far as the larynx is concerned, it has proved curative."

In the debate which follows the report of the foregoing case Dr. Elsberg remarked that he had *seen* (?) tracheotomy performed five or six times, but the operation had been done by other practitioners in accordance with his advice, probably twenty times. As far as the immediate condition of the patients after the operation was concerned, the results were satisfactory. Dr. Briddon also concurred in the belief "that such ulcerative diseases were benefited by the rest which tracheotomy could give them."

In the minutes of the meeting of the Laryngological Society of New York, held April 11, 1878, a case of ulcerative phthisical laryngitis, in which laryngo-tracheotomy had been performed, is referred to by the operator, Dr. Wm. F. Duncan. To this gentleman I am indebted for full notes of his valuable case. From it I shall only repeat a few important points, which have direct reference to the subject under consideration.

"At the time of operation in this instance, the lungs *appeared* sound. The intra-laryngeal condition looked hopeless. Tracheotomy was suggested as a curative measure, the idea in mind being to give the larynx rest, and after the operation to continue its local treatment.

"March 1, 1878, operation was performed with assistance of Drs. Bosworth, Parks, and Swinburne. The immediate effect of putting the larynx at rest was to remove the pain in the throat, and to restore easy deglutition. Two days later a laryngoscopic examination was made, and the epiglottis was seen to be less

œdematous, and the swelling over the arytenoids and ary-epiglottic folds greatly reduced. The larynx continued to improve steadily for three weeks, at which time the patient caught cold from coming out in a rain-storm. From this period she grew worse, both as regards her larynx and lungs, and died on June 5th, of catarrhal pneumonia.

"'The immediate improvement,' says Dr. Duncan, 'after inserting the tube, would seem to warrant the expectation that it might be made continuous in a similar case. And it should be remarked that the first interference with the improvement of the diseased larynx occurred after catching cold from exposure to a severe rain-storm.'"

To the preceding cases I shall add four others, viz., those reported by Dr. Serkowski,[1] of which an analysis will be found in the *Clinic* of September 22, 1877, and two others which have come to my knowledge through Dr. Charles McBurney, of New York.[2] One of Dr. Serkowski's patients died three years after tracheotomy was performed, from advanced pulmonary phthisis; the other is still alive, seven years after the operation, and in apparent good health. Dr. Serkowski believes that the opening of the trachea was not only of temporary benefit, but that it prevented extension of tuberculosis. The first of Dr. McBurney's patients affected with ulcerative phthisical laryngitis, was operated upon by himself. This individual died subsequently of phthisical ulcerations of the bowels, and his pulmonary phthisis was also far advanced. In the instance just cited, besides the relief to deglutition and respiration afforded by tracheotomy, Dr. McBurney did not remark, up to the time of death, six weeks later, any very decided improvement in the intra-laryngeal appearances. The other case, Dr. McBurney saw *once* prior to tracheotomy and diagnosed laryngeal phthisis. Sometime after the patient returned to him with a cicatrized wound and an apparently healthy larynx. This man had had tracheotomy performed on account of dyspnœa arising from phthisical obstruction of his larynx, and had improved so much as to be able to dispense with his tube and allow the wound of the trachea to close. He died later on of acute pleurisy, and it was stated by the physician who performed tracheotomy that he had *not* laryngeal phthisis, and this opinion was based upon another expert examination. This case must, therefore, remain one of doubtful signification.

Within a few days, and since writing what precedes, I have been witness of an operation of prophylactic tracheotomy in ulcerative phthisical laryngitis, performed by Dr. Morris Asch, Surgeon to the New York Eye and Ear Infirmary. In this instance, physical signs of pulmonary phthisis are present, although the *stage* of the lung affection should still be considered doubtful and is probably not advanced.

Dr. Asch's operation took place on January 27, 1879. Five days later, I received the following letter from the House Surgeon of the New York Infirmary (H. S. Oppenheimer) in regard to his then present con-

[1] Przeglad Ckarski, No. 13, 1877. Allg. Med. Central-Zeitung, No 65 1877.

[2] Oral communication.

dition. This letter reads as follows: "The patient whom you saw tracheotomized last Monday is sitting up since yesterday. His appetite is better than it was before the operation, according to his own statement, and the dysphagia less. Dr. Asch finds, on examination to-day, less swelling of the ventricular bands, some diminution of the œdema in the ary-epiglottic folds, absence of the slight erosions which existed in the folds and improvement of the ulcerations of the true vocal cords."

The subject of this paper is in part *new*, but none the less important and interesting to the general practitioner and to the specialist. Tracheotomy as an *operation of necessity*, or *dernier ressort*, is perfectly familiar to all practitioners.

But tracheotomy as a *prophylactic*, or as a *remedial* operation, at an early period of a chronic disease of the larynx, hitherto believed to be incurable in the great majority of instances, is a very different operation, looked at in regard to its *indications*, and its *possible*, or *probable* results. As such, I believe, it merits attention. Ere long I trust that other and well-observed histories may be published, which shall corroborate the facts I have here brought forward. Personally, I have the conviction, that within a brief period from this present, tracheotomy will frequently be performed as a trustworthy *remedial* operation in ulcerative phthisical laryngitis. I believe this: 1st. Because I believe that ulcerative phthisical laryngitis is usually *non*-tubercular in its nature, and therefore *curable*. 2d. Because tracheotomy seems to me the best, if not the sole means, of directly attaining this end.

Meanwhile, and without prejudging final conclusions, I respectfully offer the following:—

1. Ulcerative phthisical laryngitis is rarely a tubercular disease.

2. Topical medication, methodically and carefully carried out, is extremely serviceable, if not always curative.

3. Tracheotomy is certainly a palliative procedure of much value, and ultimately may be found a direct curative means yielding very favourable results.

4. To obtain these latter, it seems indicated not to delay the operation to a late date, but rather to perform it so soon as the nature of the disease is obvious, and other measures appear of no avail.

ARTICLE VIII.

CASES TREATED BY THE ANTISEPTIC METHOD AT ST. MARY'S HOSPITAL, PHILADELPHIA.

By J. H. EWING, M.D., Resident Surgeon.

THROUGH the courtesy of the attending surgeons, Drs. Keen, Grove, and Mears, who have kindly allowed the use of the material, I report a